



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

4601 N. Monroe Street • Spokane, Washington 99205-1295 • (509) 456-2926

December 30, 2002

Mr. Mark Cauchy
Pend Oreille Public Utility District
P.O. Box 190
Newport, WA 99156-0190

Dear Mr. Cauchy:

Enclosed is Order No. 02WQER-5121. All correspondence relating to this document should be directed to Jean Parodi at the Department of Ecology, Eastern Regional Office, 4601 N. Monroe Street, Spokane, Washington 99205-1295 or you may contact her by phone at (509) 329-3517. The enclosed Order may be appealed. The appeal procedures are described in the Order.

Sincerely,

James M. Bellatty
Section Manager
Water Quality Program

JB:JP:slt
Enclosure

cc: Magalie Roman Salas, Secretary, FERC, Washington, DC
Timothy Welch, FERC, Washington DC
Joan Marchioro, Attorney General's Office, Olympia
Service list FERC P-2042
Megan White, Ecology/Water Quality Program Manager-Lacey
Flora Goldstein, Ecology/Acting Regional Director-ERO, Spokane

COPY



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

**IN THE MATTER OF GRANTING A WATER
QUALITY CERTIFICATION** to the

Public Utility District No. 1
of Pend Oreille County,
in accordance with 33 USC 1341
(FWPCA section 401), RCW 90.48.260
and WAC 173.201A

) **Order No. 02WQER-5121**
) Relicensing of the existing
) 60 megawatt Box Canyon
) Hydroelectric Project (FERC
) No. 2042) on the Pend
) Oreille River, Pend
) Oreille County, Washington

TO: Mr. Mark Cauchy
Pend Oreille Public Utility District
P.O. Box 190
Newport, WA 99156-0190

On November 19, 2001, the Pend Oreille Public Utility District (PUD or applicant) requested water quality certification from the State of Washington Department of Ecology for the Box Canyon Hydroelectric Project (project), FERC no. 2042, pursuant to the provisions of 33 USC 1341 (FWPCA § 401). The PUD's request has an effective date of January 5, 2002. The Department of Ecology, exercising its authority pursuant to 33 USC 1341 and RCW 90.48.260, having investigated said application, makes the following findings:

1. The project has been reviewed for conformance with applicable water quality based, technology based, toxic or pretreatment effluent limitations as provided under 33 USC 1311, 1312, 1313, 1316, and 1317 (FWPCA Sections 301, 302, 303, 306 and 307).
2. The project has been reviewed for conformance with the state water quality standards as provided for in Chapter 173-201A WAC authorized by 33 USC 1313 and by Chapter 90.48 RCW.
3. The project has been reviewed for conformance with the provision of all known, available and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010.

In view of the foregoing and in accordance with 33 USC 1341, RCW 90.48.260 and Chapter 173-201A WAC, IT IS ORDERED THAT:

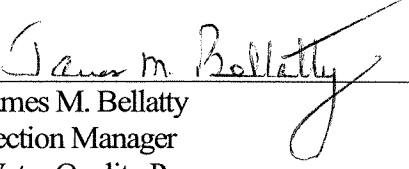
1. Subject to the attached conditions, certification under the provisions of 33 USC 1341 is granted to the Pend Oreille Public Utility District for the Box Canyon Hydroelectric Project.
2. This certification will cease to be valid if the project is constructed and/or operated in a manner not consistent with the application for certification.

3. This certification will cease to be valid and the applicant must reapply with an updated application if the information contained in the application is voided by subsequent submittals to FERC.

Any person who fails to comply with any provision of this Order may be liable for a penalty of up to ten thousand dollars for each day of continuing non-compliance for every violation.

Any person aggrieved by this Order may obtain review thereof by appeal, within thirty (30) days of the date of issuance of the Order. The appeal must be sent to the Washington Pollution Control Hearings Board, Post Office Box 40903, Olympia, Washington 98504-0903. At the same time, a copy of the appeal must be sent to the Department of Ecology, Fiscal Office, P.O. Box 47615, Olympia, Washington 98504-7615. In addition, please send a copy of your appeal to Jean Parodi, Department of Ecology, Water Quality Program, 4601 N. Monroe Street, Spokane, WA 99205-1295. The notice of appeal shall contain a copy of the order or decision being appealed, and if the order or decision followed an application, a copy of the application. These procedures are consistent with the provisions of Chapter 43.21B RCW and the rules and regulations adopted there under.

DATED this 30th day of December 2002 at Spokane, Washington.



James M. Bellatty
Section Manager
Water Quality Program
Eastern Regional Office

CERTIFICATION CONDITIONS FOR THE BOX CANYON HYDROELECTRIC PROJECT

I. General Requirements

- A. All water quality criteria as specified in WAC 173-201A-030 for Class A waters plus specific conditions for the Pend Oreille River [WAC 173-201A-130 (79)] apply to this project and the applicant shall comply with those criteria. Nothing in this order shall be construed to allow the applicant to violate Washington's water quality standards (Chapter 173-201A WAC) unless otherwise authorized by Ecology.
- B. In the event of changes in or amendments to the state water quality standards (WAC 173-201A), or changes in or amendments to the state Water Pollution Control Act (RCW 90.48), or changes in or amendments to the Federal Clean Water Act, such provisions, standards, criteria or requirements shall also apply to this project and any attendant agreements, orders, or permits.
- C. Discharge of any solid or liquid waste to the waters of the state of Washington without approval from Ecology is prohibited.
- D. The PUD shall allow Ecology access during business hours to inspect the project and its operations to monitor compliance with the conditions of this order.
- E. Copies of this order and associated permits, licenses, approvals and other documents shall be kept on site and made readily available for reference by the PUD, its contractors and consultants, and by Ecology.

DI. Specific Water Quality Provisions

A. Findings

- 1. During the summer, water temperatures in the Box Canyon reach of the Pend Oreille River frequently exceed 20° C, the criterion established for the Pend Oreille River in the state's water quality standards. Modeling by the Environmental Protection Agency, using the RBM-10 model, indicates that during late summer, water temperatures in the Box Canyon reach of the Pend Oreille River are slightly warmer, 0.2° C on average, than they would be without Box Canyon dam in place. Modeling by a consultant to the PUD, using the CE-QUAL-W2 model, indicates no warming effect due to the dam.
- 2. During high flows, total dissolved gas pressure (TDG) in the Pend Oreille River downstream of Box Canyon dam often exceeds the 110 percent of saturation established in the state's water quality standards. Operation of the project contributes to high TDG levels downstream of the dam.

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3. During the growing season, populations of Eurasian watermilfoil and other non-native aquatic plants grow abundantly in the Box Canyon reach of the Pend Oreille River. This growth helps drive pH readings over the upper limit of the state's standard, 8.5 standard units, particularly in the near shore and other shallow areas of the reservoir. Operations of the project contribute to this condition.
4. The Box Canyon reach of the Pend Oreille River is included on Washington State's 303(d) list of impaired waters for temperature, pH and exotic aquatic plants.

B. Total Maximum Daily Loads (TMDLs)-

1. By 2004, Ecology will begin developing TMDLs and associated implementation plans for bringing the Pend Oreille River into compliance with Washington State's standards for temperature, pH and total dissolved gas pressure. Where they are more protective, the provisions of the TMDL implementation plans relevant to Box Canyon dam and its operations, including specified time frames for implementing improvement measures, shall supercede the conditions of this order.

C. Total Dissolved Gas Pressure (TDG)-

1. Within three months of the date of this order, the PUD shall submit a TDG Abatement Plan to Ecology for review and approval. To date, the PUD has identified a combination of turbine upgrades, an auxiliary spillway bypass, and alternate gate settings as a possible approach for achieving compliance. The plan must describe these measures in detail, including a modeled prediction of how effective they will be at reducing gas generated by the project. Alternate measures may be proposed if they are equally effective at abating gas. The plan must also include a compliance schedule that may not exceed ten years, as well as sufficient benchmarks and reporting to permit Ecology to track the PUD's progress toward implementing the plan. Implementation of the plan shall begin as soon as Ecology has provided the PUD with written approval.
2. As operational, structural and other changes are implemented, the PUD shall monitor the effectiveness of these abatement measures at reducing TDG levels. If the TDG standard is met prior to or at the end of the ten year compliance period, no further improvements will be needed. However, Ecology will require continued monitoring to ensure that the TDG standard continues to be met during the spill season over the range of flows expected in the Pend Oreille River.

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3. If the TDG standard is not met by the end of the ten year compliance period, and after the TDG Abatement Plan has been implemented, the PUD shall evaluate and incorporate any new reasonable and feasible technologies that have been developed since the original abatement plan was prepared. If no new reasonable and feasible improvements are identified through this evaluation, the PUD shall either prepare a Use Attainability Analysis (UAA), or provide scientific justification for a site-specific TDG criterion.

D. Non-native Aquatic Biota-

1. Within six months of the date of this order, the PUD shall complete the Aquatic Plant Management Plan, currently in draft form, for the Box Canyon reservoir. The Aquatic Plant Management Plan shall be submitted to Ecology for review and approval. The plan needs to include containment methods for Eurasian water milfoil (Myriophyllum spicatum) and any other non-native nuisance aquatic plants in the reservoir, plus an implementation schedule and provisions for periodic monitoring to track progress toward meeting the goals of the plan. Implementation of the plan shall begin as soon as Ecology has provided the PUD with written approval.
2. The PUD shall prepare annual reports detailing progress toward meeting the goals of the Aquatic Plant Management Plan, including recommendations for modifying the plan as needed. These reports shall be submitted to Ecology.

E. Temperature-

1. Within one year of the date of this order, the PUD shall submit an Interim Temperature Management Plan for review and approval by Ecology. The plan needs to cover those times of the year when water temperatures both exceed 20° C and modeling indicates that impounded conditions are warmer than unimpounded conditions in the Box Canyon reach of the Pend Oreille River. The plan shall identify all reasonable and feasible mitigation measures that could be used in the short-term to decrease any warming effects of the dam's operation on temperatures in the river. If no such mitigation measures are identified, the PUD shall provide Ecology with their analysis supporting that decision. Implementation of the plan shall begin as soon as Ecology has given the PUD written approval.
2. The Interim Temperature Management Plan shall remain in effect only until Ecology completes a temperature TMDL and its associated implementation plan for the Pend Oreille River.

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DII. Water Quality Monitoring and Reporting

- A. Within one year of the date of this order, the PUD shall prepare a water quality monitoring and quality assurance project plan (QAPP) and submit the plan to Ecology for review and written approval. Initially, the plan shall include provisions for monitoring pH, temperature, dissolved oxygen, and total dissolved gas pressure (TDG). Revisions to the QAPP may be required by Ecology in the future based on monitoring results, regulatory changes, changes in project operations and/or the requirements of TMDLs. Implementation of the plan shall begin as soon as Ecology has provided the PUD with written approval.
- B. The QAPP shall include, at a minimum, a list of parameters to be monitored, a map of sampling locations, and descriptions of the purpose of the monitoring, sampling frequency, sampling procedures and equipment, analytical methods, quality control procedures, data handling and data assessment procedures, and reporting protocols. The PUD shall re-evaluate and propose any needed revisions to the QAPP at least every five years and at other times to respond to the monitoring requirements in Part II of this order. Changes to the QAPP need written approval by Ecology before taking effect.
- C. Water quality monitoring results, along with a summary report, shall be submitted annually to the Department of Ecology, Eastern Region Office. Ecology will use the monitoring results to track the project's progress toward meeting and remaining in compliance with state water quality standards.

IV. Construction Activities

- A. While the existing project is not a construction site, all development or mitigation projects proposed under relicensing must meet the following conditions. Ecology may require a separate section 401 water quality certification if another Federal permit is needed for construction of any development or mitigation project.
 - 1. All water quality criteria as specified in WAC 173-201A-030 for Class A waters and specific conditions for the Pend Oreille River [WAC 173-201A-130 (79)] apply to any construction work needed to implement development or mitigation projects required under the new FERC license.
 - 2. The turbidity criterion for Class A waters (WAC 173-201A-030(2)) may be modified to allow a temporary mixing zone during and immediately after in-water or shoreline construction activities that disturb in-place sediments.

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A temporary turbidity mixing zone is subject to the constraints of WAC 173-201A-100(4) and (6) and is authorized only after the activity has received all other necessary local and state permits and approvals, and after the implementation of appropriate best management practices (BMPs) to avoid or minimize disturbance of in-place sediments and exceedences of the turbidity criterion. The temporary turbidity mixing zone for waters with flows greater than 100 cubic feet per second (cfs) at the time of construction, is 300 feet downstream of the activity causing the turbidity exceedences.

V. Spill Prevention and Control

- A. Any work that is out of compliance with this order, conditions causing distressed or dying fish, or any discharge of oil, fuel or chemicals into state waters or onto land with a potential for entry into state waters, is prohibited.
- B. In the event of a discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, containment and clean-up efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Clean-up shall include proper disposal of any spilled material and used clean-up materials.
- C. Spills into state waters, spills onto land with a potential for entry into state waters, fish kills, and any other significant water quality impacts, shall be reported immediately to the Department of Ecology Eastern Region Office at **(509) 329-3400**. Notification shall include a description of the nature and extent of the problem, any actions taken to correct the problem, plus any proposed changes in operations to prevent further problems.

VI. Amendment of this Order

- A. Ecology reserves the right to amend this order if Ecology determines that the provisions hereof no longer provide reasonable assurance that the project and its operations will comply with state water quality standards. Any such amendment shall be done through an order which can be appealed to the Pollution Control Hearings Board under RCW 43.221B. Ecology shall transmit any such orders to FERC for inclusion in the existing license.